UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,063	02/13/2004	Youji Notoya	2004_0215A	5638

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EXAMINER
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ART UNIT	PAPER NUMBER
2621	

NOTIFICATION DATE	DELIVERY MODE
07/23/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2010*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4 and 6-17* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4 and 6-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☒ All   b)☐ Some *   c)☐ None of:

   1.☒ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   This application is responsive to application number (10777063) filed on February 13, 2004. Claims 1, 4, and 6-17 are pending and have been examined.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 18, 2010 has been entered.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.

    4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

5.   Claims 1, 4, 6-8 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada et al (US 6,148,140, hereafter Okada) in view of Chang (US 7,289,564).

6.   As per **claim 1**, Okada discloses a moving picture coding method for coding an inputted original coded moving picture signal on a picture-by-picture basis and generating a coded stream,

    wherein the inputted coded moving picture signal includes coded picture data for each picture, and display order information for each picture, and the display order information for each picture is a picture order count (POC) has a value indicating the display order of the respective pictures, the method comprising:

    a detecting step of detecting whether the values of the display order information for the pictures to be included in the generated coded stream are sequential or non-sequential, where being sequential is being incremental by one and being non-sequential is a state other than being incremented by one; (column 45 lines 19-48);

    a flag information generation step of generating a flag information indicating that the values of the display order information are non-sequential when said detecting step detects that the values of display order information values for the pictures to be included in the generated coded stream are non-sequential; (column 26 lines 46-64); and

a coded stream generating step of generating a coded stream comprising: the

coded picture data for each picture to be included in the generated coded stream; and

the flag inserted into the coded stream so as to indicate a position among the coded

picture data where the display order of the pictures is non-sequential (column 24 lines

55-64 and column 45 lines 19-48); and

the flag is stored in the coded stream or the flag is stored in random access point

information in a file system to convey the coded stream (column 26 lines 1 – 15; Okada

teaches that the flag relating to the seamless linking information is stored in the coded

stream and part of the management file system).

However, Okada does not explicitly teach the values of the display order

information for the pictures to be included in the generated coded stream are sequential

or non-sequential, where being sequential is being incremental by one and being non-

sequential is a state other than being incremental by one.

In the same field of endeavor, Chang teaches the values of the display order

information for the pictures to be included in the generated coded stream are sequential

or non-sequential, where being sequential is being incremental by one and being non-

sequential is a state other than being incremental by one (Figs 4 and Fig 7 element

S704; column 3 lines 49-53 and column 4 lines 1-15; Chang teaches that scene change

uses the display order and there is a detection aspect for the scene change where if

there is no scene change then it is sequential and if there is then it is non-sequential).

Therefore, it would have been obvious for one having skill in the art at the time of the invention to modify the invention of Okada in view of Chang. The advantage is the detection of scene changes .

As per **claim 4**, Okada discloses the moving picture coding method according to claim 1, wherein in coded stream generating step, the flag is inserted between two pictures in the generated coded stream, said two pictures being non-sequential in display order (column 26 lines 56-64).

As per **claim 6**, arguments analogous to those presented for claim 4 are applicable to claim 6.

As per **claim 7**, Okada discloses the moving picture coding method according to claim 6,

wherein in the coded stream generating step, the coded stream is generated such that a display order of pictures in the predetermined coding unit is sequential, and such that the display order of the pictures in said predetermined coding unit is located earlier than a display order of pictures in a predetermined coding unit immediately following said predetermined coding unit (column 26 lines 56-64).

Regarding **claim 8**, arguments analogous to those presented for claim 1 are applicable for claim 8.

Regarding **claim 12**, arguments analogous to those presented for claim 1 are applicable to claim 12.

Regarding **claim 13**, arguments analogous to those presented for claim 8 are

applicable to claim 13.

Regarding **claim 14**, arguments analogous to those presented for claim 1 are

applicable to claim 14.

Regarding **claim 15**, arguments analogous to those presented for claim 8 are

applicable to claim 15.

As per **claim 16**, Okada discloses the moving picture coding method according

to claim 1, wherein the flag is stored in supplemental enhancement information (SEI) for

storing additional information, the SEI being located between clips in the generated

coded stream (column 26 lines 1 - 15, Okada discloses the management file information

relating to the flag and is used as enhancement information).

Regarding **claim 17**, arguments analogous to those presented for claim 16 are

applicable for claim 17.

7.   Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Okada et al (US 6,148,140, hereafter Okada) in view of Chang (US 7,289,564) in further

view of Teo et al (US 5,621,464).

As per **claim 9**, Okada discloses the picture decoding method according to claim

8.

However, Okada does not explicitly teach wherein the flag information indicates that values indicated by display order information of the pictures are in non-sequential order, and

in the management step, a picture having a value of display order information that indicates that the picture is the earliest in display order among decoded pictures stored in the storage memory area is determined based on the display order information and the flag information, and the determined picture is determined as a picture to be removed.

In the same field of endeavor, Teo et al disclose wherein the flag information indicates that values indicated by the display order information of the pictures are in non-sequential order (Col 1 Ln 29-40; Col 3 Ln 55-63), and

in the management step, a picture whose position is the earliest in display order among decoded pictures stored in the area is determined based on the display order information and the flag information, and the determined picture is determined as a picture to be removed (Col 5 Ln 5- Col 6 Ln 5).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the image coder of Okada et al with the method of Teo et al. It is well known knowledge that with motion prediction specifically B-pictures that the picture order becomes non-sequential. The advantage would be that it notifies the image coding system to correct the picture order sequence, which results in reduction in memory buffer, power consumption and cost (Teo et al; Col 6 Ln 7-11).

As per **claim 11**, Okada discloses the moving picture decoding method according to claim 8, further comprising an invalid picture storage step of storing an invalid picture in the area when values indicated by display order information of the pictures are in non-sequential order (column 46 lines 40-60),

in the management step, whether or not to store an invalid picture in the area is determined based on the flag information and the coding order information (column 46 lines 40-60), and

in the invalid picture storage step, an invalid picture is stored in the area based on a result of the determination made in the management step (column 46 lines 40-60).

However, Okada does not explicitly teach wherein the flag indicates that the values indicated by the coding order information are in non-sequential order.

In the same field of endeavor, Teo et al discloses wherein the flag information indicates that the values indicated by the coding order information are in non-sequential order (Col 1 Ln 29-40).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the image coder of Boon et al with the method of Teo et al. It is well known knowledge that with motion prediction specifically B-pictures that the picture order becomes non-sequential. The advantage would be that it notifies the image coding system to correct the picture order sequence.

8.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okada

et al (US 6,148,140, hereafter Okada) in view of Chang (US 7,289,564) in further view

of Teo et al (US 5,621,464), as applied to claim 9 above, and further in view of Asai et al

(US 6,710,785).

As per **claim 10**, Okada disclose the moving picture decoding method according

to claim 9.

However, Okada does not explicitly teach clip information is given to the decoded

picture stored in the area, said clip information being updated; and

a picture whose position is the earliest in display order among the decoded

pictures stored in the area is determined based on the clip information, and the

determined picture is determined as a picture to be removed.

In the same field of endeavor, Asai et al does teach clip information is given to

the decoded picture stored in the area, said clip information being updated; and

a picture whose position is the earliest in display order among the decoded

pictures stored in the area is determined based on the clip information, and the

determined picture is determined as a picture to be removed (Col 12 Ln 32 – Col 13 Ln

3).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time of the invention was made to modify the image coder of Boon et al with the use

of clip information of Asai et al. The advantage of modifying the image coder of Boon et

al is that it aids in correctly sorting the clip information and display order of the video

stream.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIKAODILI E. ANYIKIRE whose telephone number is (571)270-1445. The examiner can normally be reached on Monday to Friday, 7:30 am to 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272 - 7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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